Amendments to the Claims:

The following Listing of Claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims

1. (Original) A method of formulating a pharmaceutical composition comprising:

comparing parameters of at least one pharmaceutical and a plurality of compounds, wherein the parameters comprise at least log(P) and molecular weight;

choosing at least one model compound from the plurality of compounds for each pharmaceutical;

providing at least one model compound-excipient formulation comprising at least one model compound and at least one excipient;

measuring the diffusion of a model compound of at least one model compound-excipient formulation across at least one membrane;

choosing a model compound-excipient formulation based on the measured model compound diffusion; and

combining components comprising the at least one pharmaceutical and the excipient package of the chosen model compound-excipient formulation.

2. (Original) A method according to claim 1, wherein the model compound-excipient formulation is saturated in model compound.

3. (Original) A method according to claim 1, wherein the parameters further comprise the number of freely rotatable bonds.

4. (Currently amended) A method according to claim 1, wherein the parameters further comprise the number of hydrogen bond ~~H-bond~~ donors and acceptors.

5. (Original) A method according to claim 1, wherein the diffusion is measured utilizing a Franz cell.

6. (Original) A method according to claim 1, wherein at least one model compound comprises a dye.

7. (Original) A method according to claim 6, wherein measuring the diffusion of the model compound comprises fluorescence spectroscopy.

8. (Original) A method according to claim 6, wherein the diffusion of the model compound is simultaneously measured in a plurality of diffusion cells.

9. (Original) A method according to claim 8, wherein measuring the diffusion of the model compound comprises recording an image.

10. (Original) A method according to claim 1, wherein at least one model compound-excipient formulation comprises a plurality of different excipients.

11. (Original) A method according to claim 1, wherein diffusion is measured utilizing a chemical reaction.

12. (Original) A method according to claim 1, wherein at least one membrane comprises a synthetic polymer membrane.

13. (Original) A method according to claim 1, wherein at least one membrane comprises skin.

14. (Original) A method according to claim 1, wherein at least one membrane is selected from the group consisting of hairless mouse skin, snake skin, pig skin, and cadaver skin.

15. (Original) A method according to claim 1, wherein the parameters consist of log(P) and molecular weight.

16. (Original) A method according to claim 1, wherein at least one parameter of at least one model compound is calculated.

17. (Original) A method according to claim 1, wherein at least one parameter of at least one model compound is experimentally determined.

18. (Original) A method according to claim 1, wherein at least one parameter of the pharmaceutical is calculated.

19. (Original) A method according to claim 1, wherein at least one parameter of the pharmaceutical is experimentally determined.

20. (Original) A method according to claim 1, further comprising:

contacting the pharmaceutical composition with the skin of a live mammal; and observing the result.

21. (Original) A method according to claim 1, further comprising incorporating the pharmaceutical composition into a transdermal delivery system.

22. (Original) A method according to claim 21, further comprising contacting the pharmaceutical composition with the skin of a live mammal and observing the result.

23. (Original) A method according to claim 21, wherein the transdermal delivery device comprises an adhesive patch.

24. (Original) A method according to claim 1, wherein prior to measuring diffusion of each model compound-excipient formulation, it is incorporated into an adhesive patch.

25. (Original) A method according to claim 1, wherein the model compound-excipient formulation comprises a plurality of model compounds.